

Building a Regional Integrated Assessment Program: The Mid-Atlantic Experience

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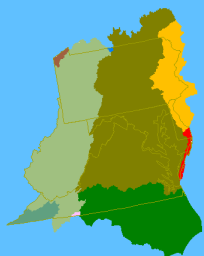
US Environmental Protection Agency

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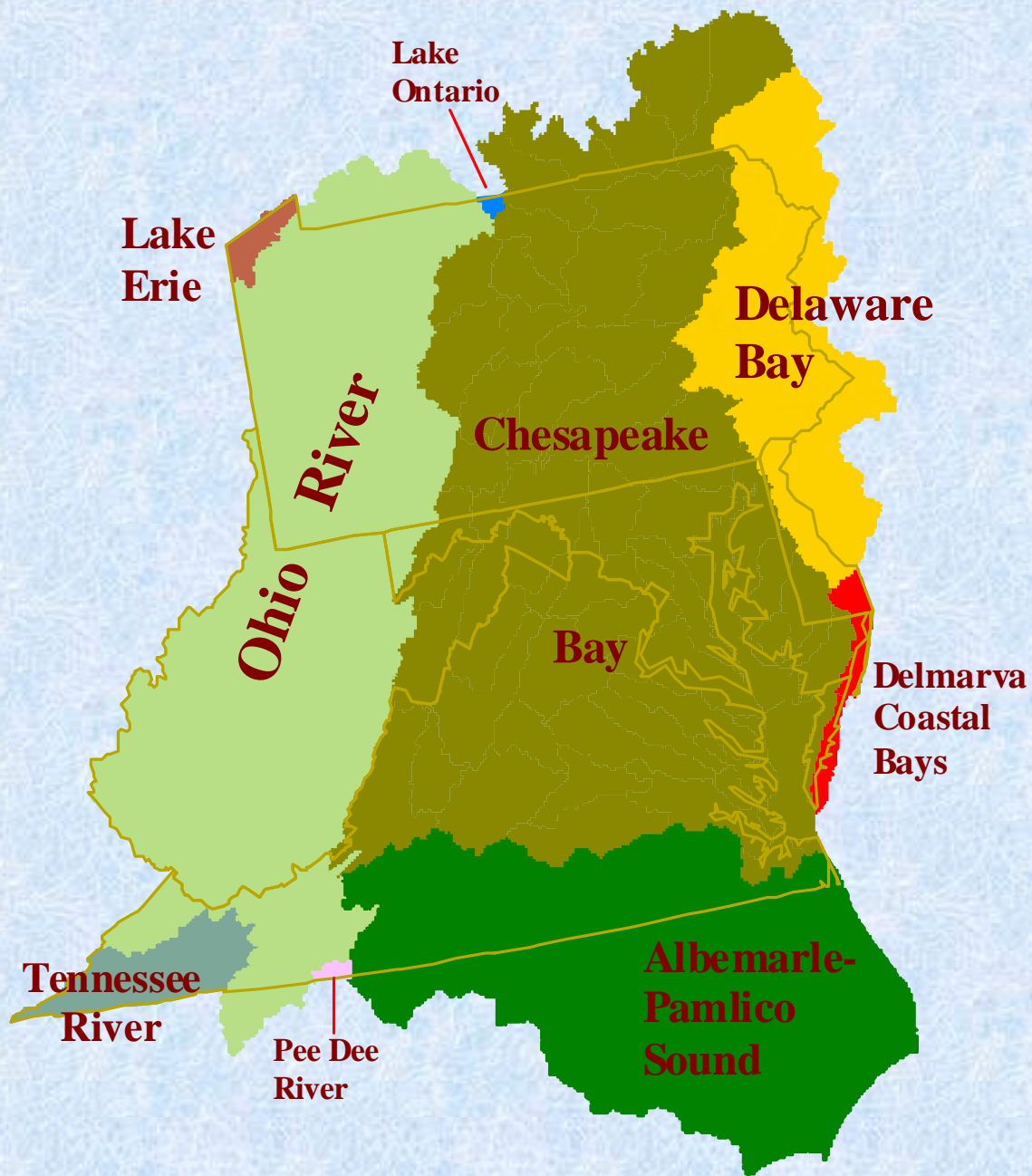
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MAIA DRAINAGE AREAS



MAIA Mission

 **To provide integrated scientific knowledge to support the environmental decision-making process for the Mid-Atlantic region**

- **Develop Acceptable and Valid Environmental Indicators for Natural Resource Protection**
- **Develop Best Characterization of Environmental Resources to Date**
- **Merge With Physical, Chemical, Socio-Economic & Human Health Data Into Dynamic and Useful Assessments**
- **Have Data Influence and Drive Management Decisions and Influence Public Perception and Opinion**
- **Translate to Relative Risk**

Assessment Questions

Key Assessment Questions

– Status and Trends

- What is the current condition?
- Is it changing? How fast?

– Diagnosis

- What is causing it?

– Management

- What can we do about it?
- Are we making a difference?

History of Partnership

- ✍ **Late 1970s Chesapeake Bay Program Starts**
- ✍ **Mid 1980s Region 3 Strategic Planning Starts**
- ✍ **Late 1980s Increased Regional Investment in Monitoring and Data Analysis**
- ✍ **Late 1980s ORD initiates EMAP as a Strategic Research and Monitoring Program**
- ✍ **Early 1990s ORD/EMAP-Region 3 Partnership Starts: Field Work in Estuaries, Surface Waters, Forests, and Landscapes**
- ✍ **Early 1990s ORD Assumes Leadership Role in Developing Science of Ecological Risk Assessment**

History of Partnership, cont'd

- ✍ **Mid 1990s EPA Implements Community-Based Environmental Protection Programs in the Regional Offices**
- ✍ **July 1995 CENR Workgroup to Develop a National Framework for Integration and Coordination of Environmental monitoring and related research**
- ✍ **Nov 1995 ORD/Region 3 Forms MAIA Team as the Proof-of-Concept Regional Study to test out new ORD research and monitoring programs**
- ✍ **Currently MAIA conducting integrated monitoring, vulnerability & risk assessment, and risk management research**

What Makes it Possible?

ORD/Regional Connection

- **MAIA Team**
- **Existing Geographic Studies (CBP, NEPs)**
- **Real World Issue(s)**
- **Personal Synergy Interaction**
- **State Partnership Agreements**

Partnerships w/

- **EPA Program Offices,**
- **Other Federal Agencies**
- **State and Local Governments**
- **NGOs**
- **Academia**

What Makes it possible, cont'd

Multi-Scale Monitoring Designs

- Temporal (current condition, trends, future)
- Spatial (variety of political and natural scales)

Scientific Tools which Support Decision-Making

- Indicators (biological, physical, chemical, landscape, socio-economic)
- Methods, Models, Decision-Support Systems

High-Quality Data

- Documented
- Accessible

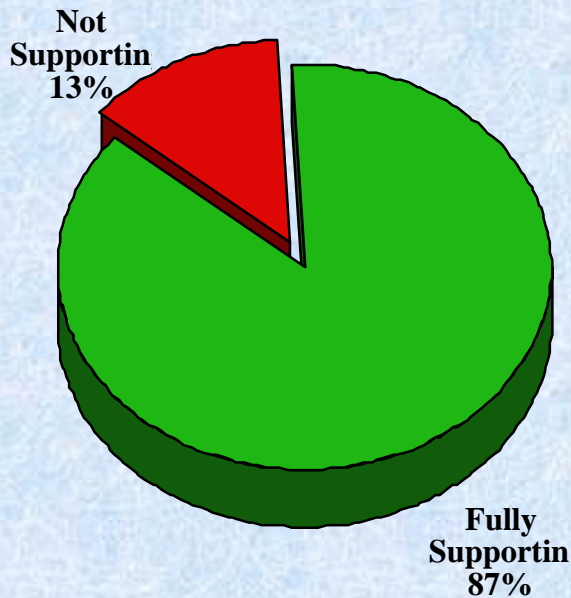
Assessment Process

- ✍ **Form Assessment Team: partners/stakeholders**
 - Researchers
 - Managers
- ✍ **Agree on key issues / report outline**
- ✍ **Develop assessment questions**
 - hierarchical
- ✍ **Identify indicators**
 - Gaps? Develop New Indicators
- ✍ **Determine Adequacy of Existing Information**
 - Gaps? Gather New Data
- ✍ **Integrate/Analyze Existing Information and New Data**

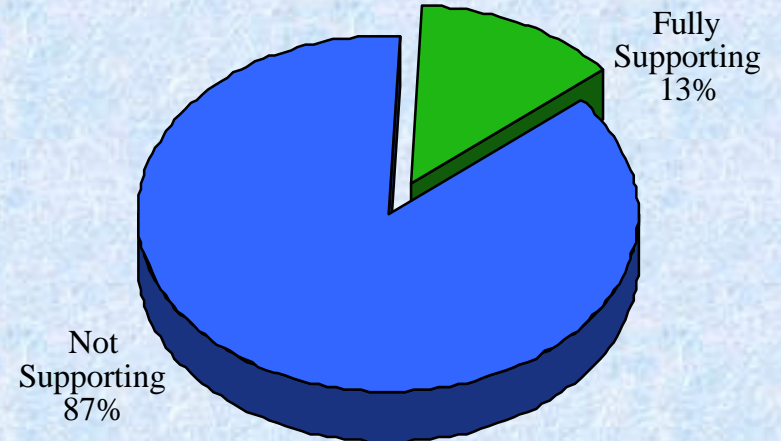
Product Development

- ✍ **Establish core writing team**
 - **MAIA team**
 - **Researchers as technical advisors**
 - **Managers as relevancy advisors**
- ✍ **Develop drafts / review / revise**
 - **Data input from customers**
 - **Peer review**
 - **Relevancy review**
- ✍ **Produce Final Report**
 - **Public oriented, full-color**
 - **Web-based, linked**

Goals & Objectives Influence Measures & Outcomes



Traditional 305(b) Report
Chemical Evidence
Aggregation of Existing
Data



New Report
Biological Evidence
Probability Survey

MAIA Website

www.epa.gov/maia

